

PHYS820/NTEC N11: Radiation Shielding Module

TIMETABLE: The lectures and practical sessions in the CTL Radiation laboratory

Monday 22nd January

10:00	Introduction to the course
10:30	Lecture: Radiological Protection Principles
11:15	Lecture: Introduction to Radiation Sensors
12:15	Lunch
13:30	Lecture: An introduction to MCNP & Validation (Andy Boston)
14:30	Practical 2A: Introduction to MCNP
17:00	Finish

Tuesday 23rd January

09:15	Lecture: Monte Carlo Simulation (Andy Boston)
10:15	Break, discussion
10:45	Practical 1&2: Neutron detector data
12:15	Lunch
13:30	Practical 1&2: MCNP simulation of detector rig
15:30	Break, discussion
16:00	Practical 1&2: MCNP simulation of detector rig
17:00	Finish

Wednesday 24th January

09:15	Lecture: Use of Monte Carlo Codes (Jacobs)
10:15	Case Study: Streaming (Jacobs)
10:45	Break, discussion
11:15	Lecture: Use of Deterministic Codes in Shielding (Silver Fir)
12:15	Lunch
13:15	Practical 2: MCNP simulation of detector rig
15:45	Break, discussion
16:15	Practical 2: MCNP simulation of detector rig
17:00	Finish

Thursday 25th January

09:15	Lecture: The shielding design process (Cerberus Nuclear)
10:15	Break, discussion
10:45	Practical 2: MCNP simulation of detector rig
12:15	Lunch
13:15	Lecture: Shielding Applications (BAE Systems Submarines)
14:15	Practical 2: MCNP simulation of detector rig
15:30	Break, discussion
16:00	Practical 2: MCNP simulation of detector rig
17:00	Finish

Friday 26th January

09:15	Practical 2: MCNP simulation of detector rig
11:00	Break, discussion
11:30	Written test
12:30	Lunch
14:00	End of Course